# SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

**COMMENTS:** 

SDG <u>061-0292-01</u> SAF-RC-001

Rad only X Chem only Rad & Chem

X Complete

**Partial** 

300 Area 303M Bldg







#### Cover Page

Report Identification Number: 06I-0292-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

SAF#: RC-001 / R303M0 J451

Payroll#: 73513



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Sample Information

| Sample Date | Customer<br>Sample<br>Number | Laboratory<br>Sample<br>Number | Method     | Analytical<br>Batch<br>Identification | Sample Matrix |
|-------------|------------------------------|--------------------------------|------------|---------------------------------------|---------------|
| 24 Jan 2006 | J10Y96                       | 06I02359                       | NMAM 7300M | G060T00J                              | G WIPE        |
| 24 Jan 2006 | J10Y95                       | 06I02360                       | NMAM 7300M | G060T00J                              | G WIPE        |
| 24 Jan 2006 | J10Y94                       | 06I02361                       | NMAM 7300M | G060T00J                              | G WIPE        |
| 24 Jan 2006 | J10Y93                       | 06I02362                       | NMAM 7300M | G060T00J                              | G WIPE        |

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FAX: (801) 268-9992

Name: Joanna C. Sanchez

Title: Chemist

Date: January 27, 2006





#### Case Narrative Page

Report Identification Number: 06I-0292-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

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General Set Information: There are 4 samples in set 06I-0292-01. The samples were analyzed for cadmium, lead and beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

**Holding Times:** The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.02 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.2 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 3. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in any of the media blank samples above the Contract Required Detection Limit (CRDL).

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**Dilution(s):** None were required.



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#### Case Narrative Page

<u>Laboratory Control Sample and Duplicate Analysis:</u> One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS results were within the control limits of +/- 20%. The Relative Percent Difference (RPD) between the LCS and the LCSD were within the control limit of 20%.

<u>Replicate Analysis:</u> One sample in this batch was replicated. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

**Sample Calculation:** The final results are calculated by the following equation:

Final result for aqueous samples ( $\mu$ g/sample) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ( $\mu g/L$ )

B = Concentration factor from sample preparation

= Final Volume of Digestate (L)

Sample

C = Dilution performed at time of analysis

Example Calculation:  $(1 \mu g/L) \times (0.025 L/sample) \times (1) = 0.025 \mu g/sample$ 

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Miscellaneous Comments: None



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### Report Page

Report Identification Number: 06I-0292-01

Subcontract Number:

0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number:

**DCHM** 

SAF#: RC-001 / R303M0 J451

Payroll#: 73513

| Customer Sample Number | Laboratory<br>Sample<br>Number | Date<br>Analyzed | Berylliun<br>µg/sample |     | Cadmiun<br>µg/sampl | ,  | Lead<br>μg/sample | e |
|------------------------|--------------------------------|------------------|------------------------|-----|---------------------|----|-------------------|---|
| J10Y96                 | 06I02359                       | 26 Jan 2006      | 0.022                  |     | <0.2                | U  | <3.               | U |
| J10Y95                 | 06I02360                       | 26 Jan 2006      | < 0.02                 | U   | <0.2                | U  | <3.               | U |
| J10Y94                 | 06102361                       | 26 Jan 2006      | < 0.02                 | U   | <0.2                | U  | <3.               | U |
| J10Y93                 | 06I02362                       | 26 Jan 2006      | < 0.02                 | U   | <0.2                | U  | <3.               | U |
|                        | 0.02                           |                  | (                      | 0.2 |                     | 3. |                   |   |
| R                      | equired Detect                 |                  |                        |     |                     |    |                   |   |

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U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.



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### **QC Summary Page**

Report Identification Number: 06I-0292-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

SAF: RC-001 / R303M0 J451

Payroll#: 73513

Batch ID: G060T00J

|              |      |           |           |        | _      |        | _       | Relative      |
|--------------|------|-----------|-----------|--------|--------|--------|---------|---------------|
| 000 S        | QC   | A l4 -    | TT        | Donuld | Parent | Towast | Percent | Percent Diff. |
| QC Sample ID | Type | Analyte   | Units     | Result | Result | Target | Rec.    |               |
| BL-240449-1  | MB   | Beryllium | μg/sample | ND     | NA     | NA     | NA      | NA            |
| BL-240449-1  | MB   | Cadmium   | μg/sample | ND     | NA     | NA     | NA      | NA            |
| BL-240449-1  | MB   | Lead      | μg/sample | ND     | NA     | NA     | NA      | NA            |
| QC-240449-1  | LCS  | Beryllium | μg/sample | 11.7   | NA     | 10.0   | 117.    | NA            |
| QC-240449-1  | LCS  | Cadmium   | μg/sample | 33.1   | NA     | 30.0   | 110.    | NA            |
| QC-240449-1  | LCS  | Lead      | μg/sample | 103.   | NA     | 100.   | 103.    | NA            |
| QD-240449-1  | LCSD | Beryllium | μg/sample | 11.6   | 11.7   | 10.0   | 116.    | 0.845         |
| QD-240449-1  | LCSD | Cadmium   | μg/sample | 32.9   | 33.1   | 30.0   | 110.    | 0.414         |
| QD-240449-1  | LCSD | Lead      | μg/sample | 103.   | 103.   | 100.   | 103.    | 0.109         |

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) \* 100.0

MS, MSD Percent Rec. = ((Result – Parent) / Target) \* 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS - LCSD|) / ((LCS + LCSD)/2.0)) \* 100.

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MS, MSD Relative Percent Diff. = ((|MS - MSD|) / ((MS + MSD)/2.0)) \* 100.

LD Relative Percent Diff. = ((|Parent - LD|) / ((Parent + LD)/2.0)) \* 100



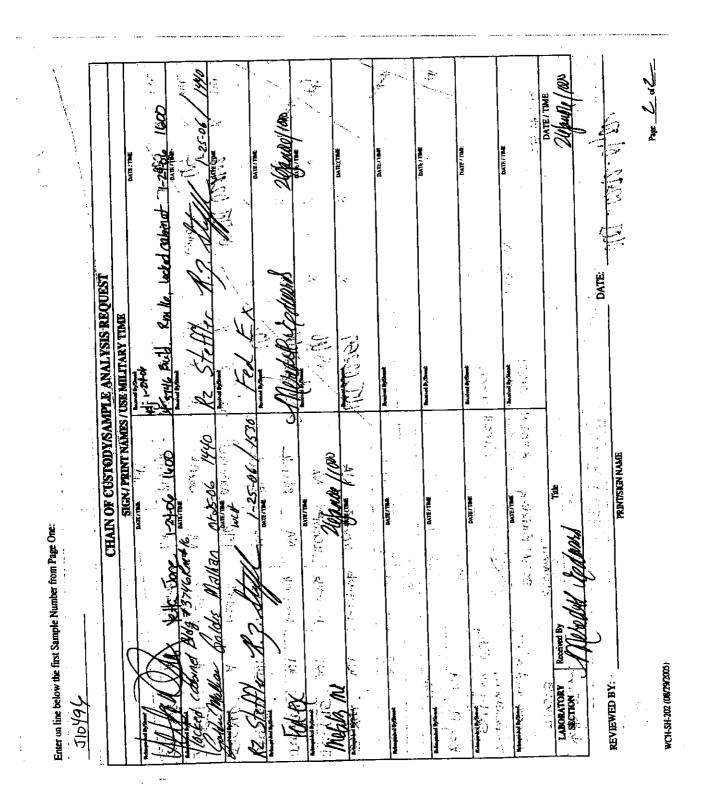
## **COC** Page

| ;<br>;<br>;       |  |   | 2  |                   | 0  |                               | F  | 7               | A A A A A A A A A A A A A A A A A A A | 1       | \$      | *           | 1        | 2        | 2          | <del> </del> |  |         |  | 7]                      |
|-------------------|--|---|--|-------------------|--|-------------------------------|--|-----------------|---------------------------------------|---------|---------|-------------|----------|----------|------------|--------------|--|---------|--|-------------------------|
| 9                 |  | Data Tumaround                                      | 24 HOUR  |                   | 1/10   | <u>e</u>                      | ž  | 1               | Airburse                              |         |         | De fre      | -        | ×        | <b>√</b>   |              |  |         | <u>                                     </u> |                         |
| 0.7               |  | Data T  | <u>,</u> ,   |                   |  |                               | <b>2</b>                                       |                 | ខេ <del>ទ្ធី</del>                    | ×       | ~       | ×           | *        | 02412    | 这          | ×            |  | : .     |  | o . 2                   |
| 020               |  | :   |  |                   | 900  |                               | 2  |                 | Vipe W                                | ×       | ~       | ×           | ×        | 100      | <b>.</b> / | -            |  |         |  | -  <br>  <u>#</u>       |
| JUT - 0292. 61.82 |  |   |  |                   | ir Bill No.                                    |                               | 2  |                 | Mold                                  |         |         |             |          | 15       | 3          | \$.          |  |         |  | -                       |
|                   | UEST                                     | Project Coordinator<br>Joan H. Kessner              | SAF No.<br>RC-001  | Method of Shipmen | Bill of Ladings Air Bill No.                   | C 0                           | £  |                 | Beryläum<br>Wipe                      | ×       | ×       | ×           | . X      |          |            | 45           |  |         |  | 1                       |
| :                 | SIS REC                                  | - 3   | NE   |                   | <u> </u>                                       | _                             | ₽.   |                 | Beryllian<br>Airbone                  | 8       | 94      | <i>))</i> ) | W        | X        | ~          | ×            |  |         |  | 1                       |
|                   | ANALY                                    | 2 2<br>2 2  | ovided:  | £7.<br>Ω          | 8  |                               | £  |                 | Aithorne<br>Aithorne                  | 02359   | 00 (A)  | 20.00       | <u> </u> | <b>×</b> | X          | *            | 4.4  |         |  | 1                       |
|                   | AMPLE                                    | - Telephone No.<br>531-1229                         | RUCTIONS<br>As must be pr                                | R303MO J451       | Nies# 7300                                     |                               | 2  |                 | Asbestos<br>Airborne                  | XVC     |         |             |          | \$       | ſΔ         | Z            | The state of the s |         |  |                         |
| İ                 | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST |   | SPECIAL INSTRUCTIONS All relevant COAs must be provided: | - Z               | SO TO  |                               | Preservation (i.e., cooling<br>required, etc.) |                 | 3                                     | Z.A.    | NA      | Bank        | Blank    | aersonal | Blank      | Bland        | \$   | 1-24-00 |  |                         |
|                   | CHAIN 01                                 | Company Contact<br>Denise A. Pins and Honry W. Raby | conton<br>Peo.   | 303M Building     | r Media:                                       | -                             | <del></del>                                    | SS              | VOELHAE (L) or<br>Area car            | 2 mc/Di | 100cm   | A.A.        | <b>Ž</b> | 176      | *          | ×            |  |         |  | %<br>                   |
| .                 | į  | Company C<br>Denise A. P                            | Sempling Location<br>300 Ave.o.                          | 8                 | Wipe Sample Media:<br>Glost 1814:s. [<br>Other |                               | WI WIPE  | SAMPLE ANALYSES | SAMPLE DATE                           | 40-42-1 | 1-24-06 | 1-24-06     | 1-24-06  | 1-24-06  | 1-24-06    | 1-24-00      |  |         |  |                         |
|                   |  | <b>\$</b>   | 3  | منه مه            | gine chem<br>Sattlake City                     | WZARDREMARKS                  | S andur Storage                                |                 | XXTTAX                                | 19      | 13      | 2           | m!       | *        | *          | · X          |  |         |  | Zods)                   |
|                   |  | Collection.   | Payroll #:<br>7 3/6/3                                    | Type of Sample:   | Samuelle<br>Toote Chem<br>Salt-Lok             | POSSIBLE SAMPLE HAZARDARBHARK | Special Handling and to Songe                  |                 | ON TUNYS                              | JIOYG6  | Tioyas  | गुरुद्ध.    | Jioygs   | 110XLD " | JIORTI     | J. IOWAS     |  |         | 1984E  | WCH-SH-202 (08/29/2055) |

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## **COC** Page



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|                         |              |               | CHAIN  | OF CUSTODY/S              | AMPLE   | ANALY                     | SIS R     | EQUEST       |                    |   |                 |         |         |  |  |  |
|-------------------------|--------------|---------------|--|---------------------------|---|---------------------------|-----------|--------------|--------------------|---|-----------------|---------|---------|--|--|--|
| Collector:<br>Letta Jor | 755          |               | Company Contact<br>Denise A. Pitts and Henry W. Ruby |                           |   | Telephone No.<br>531-1229 |           |              |                    |   | Data Turnaround |         |         |  |  |  |
| Payroll #:              | -            | Sampling Lo   | rea  | Ali relevant CO           | PECIAL INSTRUCTIONS All relevant COAs must be provided: |                           |           |              | SAF No.<br>RC-001  |   |                 |         | R       |  |  |  |
| Type of Sample:         | nd air       |               | SM Build   | ing R303                  | R303M0 J45 ( ANALYSIS METHOD (SPECIFIC):                |                           |           |              | Method of Shipment |   |                 |         |         |  |  |  |
| Shipped To:             | m            |               | Yes No   | Nios                      | NIOSH 7300  |                           |           |              |                    | Bill of Lading/Air Bill No.  8544 9435 4678 |                 |         |         |  |  |  |
|                         | ave Citz     |               |  |                           | 1   | 1                         | 1         | 1 05         | 79                 | <u> 7725</u>                                |                 | 6/8     | n.      |  |  |  |
| POSSIBLE SAMPLE H       | AZARD/REMARK | MATI<br>A AIR |  | eservation (i.e., cooling |   |                           | •         |              |                    |   |                 |         | 1\      |  |  |  |
| Special Handling and    |              | wi - wi       | WI - WIPE require X - OTHER                          |                           | No  | No                        | No        | No           | No                 | No  | No              | No      | (th)    |  |  |  |
|                         |              | SAMPLE ANALY  | SIS  |                           | Asbestos  | Lead                      | Berylliun | un Beryllium |                    | Lead  | Cd              | Cd      | /       |  |  |  |
| SAMPLE NO.              | MATRIX       | SAMPLE DATE   | VOLUME (L) or<br>Area cm²                            | Comments                  | Airbonne  | Airborne                  | Airbon    |              | Mold               | Wipe  | Wipe            | Airbome | 1-24-04 |  |  |  |
| JIOY96                  | wı           | 1-24-06       | 100cm²   | NA                        |   |                           |           | ×            |                    | ×   | Х               |         |         |  |  |  |
| J10495                  | WI           | 1-24-06       | 100cm²   | NA                        |   | rdj.                      |           | ×            |                    | X   | X               |         | phj     |  |  |  |
| J10494                  | WI           | 1-24-06       | NA   | Blank                     | ļ   | 1-24-00                   |           | Х            |                    | ×   | Х               | 1-24-04 |         |  |  |  |
| J10793                  | Wι           | 1-24-06       | NA   | Blenk                     |   |                           |           | У            |                    | х   | Х               |         |         |  |  |  |
| JIOXLD                  | A            | 1-24-06       | 176  | personal                  | na  | X                         | 人         | M            | ybj.               |   |                 | K       | na      |  |  |  |
| JIORTI                  | A            | 1-24-06       | NA   | Blank                     | na  | K                         | (X)       | ) U          | 1-24-04            |   |                 | X       | na      |  |  |  |
| JIOWY8                  | A            | 1-24-06       | NA   | Blank                     | na  | 7                         | X         |              |                    |   |                 | X       | na      |  |  |  |
|                         |              |               |  | ydj                       |   |                           |           | F            | ELD (              | SAMP  | E CC            | )PY     |         |  |  |  |
|                         |              |               |  | 1-24-00                   | <del> </del>  |                           |           |              |                    |   |                 |         |         |  |  |  |
|                         |              |               |  |                           |   |                           |           |              |                    |   |                 |         |         |  |  |  |
|                         |              |               |  | ·                         |   |                           |           |              |                    |   | 4               |         |         |  |  |  |

|                                       | C                  | THAIN OF CUSTODY/SAN | MPLE ANALYS          | IS REQUEST                            |              |              |
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|                                       |                    | SIGN / PRINT NAMES   | / USE MILITARY       | TIME                                  |              |              |
| Reimquished By/Sured                  | <b>X</b> /         | DATE / TIME ;        | Received By/Shired   |                                       | DATE / TIME  |              |
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| VITTER                                | Yeth Jone          | 1-24-06 1600         | 43746 Bud.           | Rm/le Locked caloinet                 | 1-24-06 16ac | 2            |
| Reinfarched Byforded                  | Sind Bldg #3746KM+ | 16 DATE/TIME         | Received By/Stored:  | ,                                     | DATE / TIME  |              |
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| Gretan Malle                          | a bolde Malhan     | 01-25-06 1440        | KZ Stet              | ther M.J. Stepl                       | 1-25-06/     | 1990         |
| Reinfugiviscal By/Sweet.              |                    | DATE/TIME            | Received By/Storeck  |                                       | DATE/TIME    | ś            |
| m // M                                | No Hill            | with                 | 1 E1                 | =                                     |              |              |
| KZ Stett/11                           | - 1.7. Styll       | 1-25-06 / 1530       | Ted 1                | <u> </u>                              |              |              |
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